

1                   41. (New) A holding device adapted to receive at least one container  
2 containing a polymer array and a fluid, the holding device comprising:  
3                   a body with a rotational axis;  
4                   a pair of end members extending from the rotational axis;  
5                   one or more walls extending between the end members parallel to the  
6 rotational axis; and  
7                   at least one coupling member constructed and arranged to couple the  
8 container to at least one of the walls, such that the polymer array is substantially  
9 perpendicular to the rotational axis.

1                   42. (New) A system for facilitating the mixing of a fluid, the system  
2 comprising:  
3                   at least one container containing a polymer array and a fluid; and  
4                   a holding device comprising a body with a rotational axis, a pair of end  
5 members extending from the rotational axis, one or more walls extending between the  
6 end members parallel to the rotational axis and at least one coupling member constructed  
7 and arranged to couple the container to at least one of the walls, such that the polymer  
8 array is substantially perpendicular to the rotational axis.

1                   43. (New) A system as in claim 42, wherein the container defines a  
2 chamber, the chamber including a pair of closely spaced-apart faces that are separated by  
3 walls to define a narrow interior, wherein one of the faces defines a planar surface on  
4 which the probe array is disposed.

1                   44. (New) A system as in claim 43, wherein the walls of the chamber  
2 are set at angles sufficient to agitate the fluid when rotated.

1                   45. (New) A system as in claim 42, wherein the container is only  
2 partially filled with the fluid to form a bubble therein.

1                   46. (New) A system as in claim 45, wherein the fluid contains at least  
2 one target molecule and the polymer array contains complementary probe sequences,  
3 wherein agitation of the fluid by the bubble increases the hybridization rate between the  
4 target molecule and the probe sequences.

1                   47. (New) A system as in claim 42, wherein the end members are  
2 perpendicular to the walls.

1                   48. (New) A system as in claim 42, wherein the coupling member  
2 comprises a pair of rails fixedly attached to one of the walls to form a slot for receiving  
3 the container.

1                   49. (New) A system as in claim 48, wherein the rails are  
2 perpendicular to the wall.

1                   50. (New) A system as in claim 42, further comprising an oven,  
2 wherein the holding device is rotatably disposed in the oven.

1                   51. (New) A method for facilitating the mixing of a fluid, the method  
2 comprising:  
3                   providing a container containing a polymer array and a fluid;  
4                   coupling the container to a holding device, the holding device comprising  
5 a body with a rotational axis, a pair of end members extending from the rotational axis  
6 and a plurality of walls extending between the end members parallel to the rotational  
7 axis, such that the polymer array is substantially perpendicular to the rotational axis; and  
8                   rotating the body about the rotational axis such that the fluid is agitated to  
9 mix the fluid within the container.

1                   52. (New) A method as in claim 51, wherein:

2 the holding device further comprises a first pair of rails fixedly attached to  
3 a first wall to form a first slot and a second pair of rails fixedly attached to a second wall  
4 to form a second slot;

5 the container further comprises a first end and a second end; and  
6 coupling the container to the holding device comprises removably  
7 positioning the first end in the first slot and removably positioning the second end in the  
8 second slot.

1                   53. (New) A method as in claim 51, wherein the container defines a  
2 chamber, the chamber including a pair of closely spaced-apart faces that are separated by  
3 walls to define a narrow interior, wherein one of the faces defines a planar surface on  
4 which the probe array is disposed.

1 54. (New) A method as in claim 53, wherein the walls of the chamber  
2 are set at angles sufficient to agitate the fluid when rotated.

1 55. (New) A method as in claim 51, further comprising rotating the  
2 body about the rotational axis at a rate in the range from about 30 rpm to about 90 rpm.

1 56 (New) A method for facilitating the mixing of a fluid, the method  
2 comprising:

3 providing a container containing a polymer array, wherein the container is  
4 only partially filled with a fluid to form a bubble therein;

coupling the container to a holding device, the holding device comprising a body with a rotational axis, a pair of end members extending from the rotational axis and one or more walls extending between the end members parallel to the rotational axis, such that the polymer array is substantially perpendicular to the rotational axis; and

rotating the body about the rotational axis such that the bubble agitates the fluid to mix the fluid within the container.

1                   57. (New) A method as in claim 56, wherein the container defines a  
2                   chamber, the chamber including a pair of closely spaced-apart faces that are separated by  
3                   walls to define a narrow interior, wherein one of the faces defines a planar surface on  
4                   which the probe array is disposed.

1                   58. (New) A method as in claim 57, wherein the walls of the chamber  
2                   are set at angles sufficient to agitate the fluid when rotated.

1                   59. (New) A method as in claim 56, wherein the fluid contains at least  
2                   one target molecule and the polymer array contains complementary probe sequences,  
3                   wherein agitation of the fluid by the bubble increases the hybridization rate between the  
4                   target molecule and the probe sequences.

5                   60. (New) A method for facilitating the mixing of a fluid, the method  
6                   comprising:  
7                   providing an oven having an open interior;  
8                   providing a container containing a polymer array and a fluid;  
9                   coupling the container to a holding device, the holding device comprising  
10                   a body with a rotational axis, a pair of end members extending from the rotational axis  
11                   and one or more walls extending between the end members parallel to the rotational axis,  
12                   such that the polymer array is substantially perpendicular to the rotational axis; and  
13                   rotatably positioning the body within the interior of the oven and rotating  
14                   the body about the rotational axis such that the fluid is agitated to mix the fluid within the  
15                   container; and  
16                   supplying heat to the interior of the oven while rotating the body.

1                   61. (New) A method as in claim 60, wherein the container is only  
2                   partially filled with the fluid to form a bubble therein, such that the bubble agitates the  
3                   fluid to mix the fluid within the container when rotated.